

88-225. Physical Electronics**Learning Outcomes**

Last Updated: June 15, 2017

(PDC170615-5.7)

Learning Outcomes <i>This is a sentence completion exercise.</i> <u>At the end of the course, the successful student will know and be able to:</u>	Characteristics of a University of Windsor Graduate <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Describe fundamental properties of different semiconductor materials and how the conductivity of semiconductors can be engineered to make useful electron devices.	A. the acquisition, application and integration of knowledge
B. Analyze and use variables and mathematical models that characterize current voltage and other functional characteristics of semiconductor device.	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Implement the mathematical models in computer based design tools such as Matlab to analyze and graphically illustrate the behaviour of different physical parameters and how the graphical results can be used to design a semiconductor device.	C. critical thinking and problem-solving skills
D. Understand the constructional details, current-voltage characteristics, and design methodology of P-N junction diodes, MOSFETs, and BJTs.	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F.	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H.	H. creativity and aesthetic appreciation
I. Analyze and design semiconductor devices.	I. the ability and desire for continuous learning